

Natural Gas Activity; A Look Back and Forward

This column is presented weekly by the Public Education sub-committee of the Clinton County Natural Gas Task Force in an effort to provide accurate, up-to-date information on activities surrounding the Marcellus Shale formation and the natural gas exploration industry. For more information on Task Force activities, visit the Task Force page on the Clinton County government website at www.clintoncountypa.com.

As 2010 wraps up and natural gas activity for 2011 gets underway, it's a good time to look at past activity in the Marcellus Shale and what the future holds. A year ago the word Marcellus was foreign, and now it seems like a household term. Not only is everyone more aware of the potential of the Marcellus Shale but other geologic formations, such as the Utica Shale, are grabbing more headlines lately. Energy companies are slowly exploring the potential of the Utica Shale as well as other Upper Devonian Shales. According to Matt Pitzarella, spokesman for Range Resources, "While it still is early for the Marcellus (shale), it is really early for the other shales, but we believe that collectively these other two targets could be as prolific as the Marcellus." Only time will tell what the discussions will be at this time next year.

During 2008 leasing activity for natural gas drilling rights reached frenzy levels with bonus payments exceeding \$3,000 per acre. Energy companies were positioning themselves for future activity through leases and acquiring drilling permits. According to DEP, there were 196 Marcellus wells drilled in Pennsylvania during 2008 while 529 drilling permits were issued. Washington and Susquehanna Counties led the Commonwealth with 32 wells drilled each. Clinton County saw three Marcellus wells drilled and eight permits issued in 2008. Neighboring Lycoming County and Centre County had 13 and five wells drilled, respectively.

The activity level during 2009 dramatically increased as drilling permits soared to nearly 2,000, with 763 Marcellus wells drilled in Pennsylvania. Washington County once again led the way with 138 wells drilled, followed closely by Tioga (114), and Bradford (113) counties. During the latter part of 2009, there was a noticeable shift in the activity level from the southwest part of the state to the northeast. This was evident as Bradford County easily led the state with 430 permits issued. Tioga County was the next closest with 300 Marcellus Shale permits issued. This would set the stage for a major shift in activity in 2010. Clinton County kept pace with the increase with 41 new permits issued and 12 wells drilled for the Marcellus in 2009. In Lycoming County, 24 more wells were drilled, with 107 permits issued.

Natural gas prices continued to decrease during 2010 plummeting to under \$4.00 per million British thermal unit. The increased natural gas supply kept prices suppressed throughout the year before making a slight rebound during December. Currently prices are near \$4.50 per MMBtu, down from a high during mid 2008 of over \$13.50. Companies were able to maintain their drilling programs as they hedged prices during 2009 and part of 2010 based on these higher prices. Even into 2011 some companies have been able to hedge their production based on projected price increases and demand for natural gas. According to a press release from Range Resources, they have hedged up to 80% of their 2011 production at a net price of \$5.12. This gives the company a fixed amount of cash flow and the ability to maintain their drilling schedule.

The rig count – which includes all active drilling operations -- is good indicator of activity level and during 2010 Pennsylvania continued to be one of the top states to see an increase in drilling rigs. There were 64 active drilling rigs in the state in January of last year, and as of the end of 2010 there were 103 active drilling rigs. Bradford County exited 2010 with 29 drilling rigs, more than twice the 13 they started the year at. Clinton County fluctuated from one to four drilling rigs throughout the year. Starting 2011, according to Baker Hughes, a service provider for the natural gas industry, there was only one active rig in Clinton. Centre County had one

drilling rig for the most of 2010, with Lycoming County tripling their rig count from four to 12 by the end of the year.

Despite depressed gas prices and increased activity in the Eagle Ford Shale located in South Texas, Pennsylvania saw another big increase in activity for 2010. Marcellus drilling permits surpassed all other gas and oil drilling permits for the first time, with 3,314 Marcellus and 3,284 non Marcellus permits being issued. Not surprisingly, Bradford and Tioga counties led the state with 830 and 564 Marcellus permits issued, respectively. They were followed by neighboring county Lycoming with 254. According to the DEP website, Lycoming County had 68 of their permits issued in December. Clinton County only saw a slight increase from their 41 permits in 2009, with 48 issued during 2010. Centre County was seventh in the state with 97 Marcellus permits.

With Bradford County having in excess of 20 active rigs on a daily basis, it is not surprising they led the state with 355 of the total 1,386 Marcellus wells drilled during 2010. Nearly 100 behind was Tioga County with 261 wells drilled throughout the year. Washington (136) and Lycoming (102) were the only other counties with over 100 drilled wells. During the fourth quarter of 2010, Washington County only recorded 18 Marcellus wells.

What does 2011 have in store for the natural gas industry locally? Many factors can influence that answer. With a new administration and an anti-tax sentiment in Harrisburg, public opinion is mixed on how legislation or regulatory controls will impact the industry. Only a week into the new state legislative session there are many bills being proposed related to the natural gas industry. Natural gas prices have slowly been on the rise in recent months, but only time will tell if they will continue to rise or maintain their current level. The increased supply has prompted interest for natural gas fueling stations, fleet vehicles and government use of natural gas.

Based on rig counts, drilling permits and investor reports, it is clear the drilling activity will continue for the foreseeable future. Energy companies have lease obligations to satisfy, a large capital investment in place and potentially huge profits to reap. Until gas prices rebound more, the activity level is expected to shift to higher butane, or wet gas, as it is more valuable to the energy companies. Following the permits issued, wells drilled and production data all provided through the DEP web site at www.depweb.state.pa.us will give a better insight to the activity level. The Clinton County Natural Gas Task Force will continue to monitor natural gas drilling activity on the county level and will publish periodic updates through this column.

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